B.C.Smith.

Iron Pavement.

No. 18,251. Patented Sept. 22, 1857.

Fig. 1.

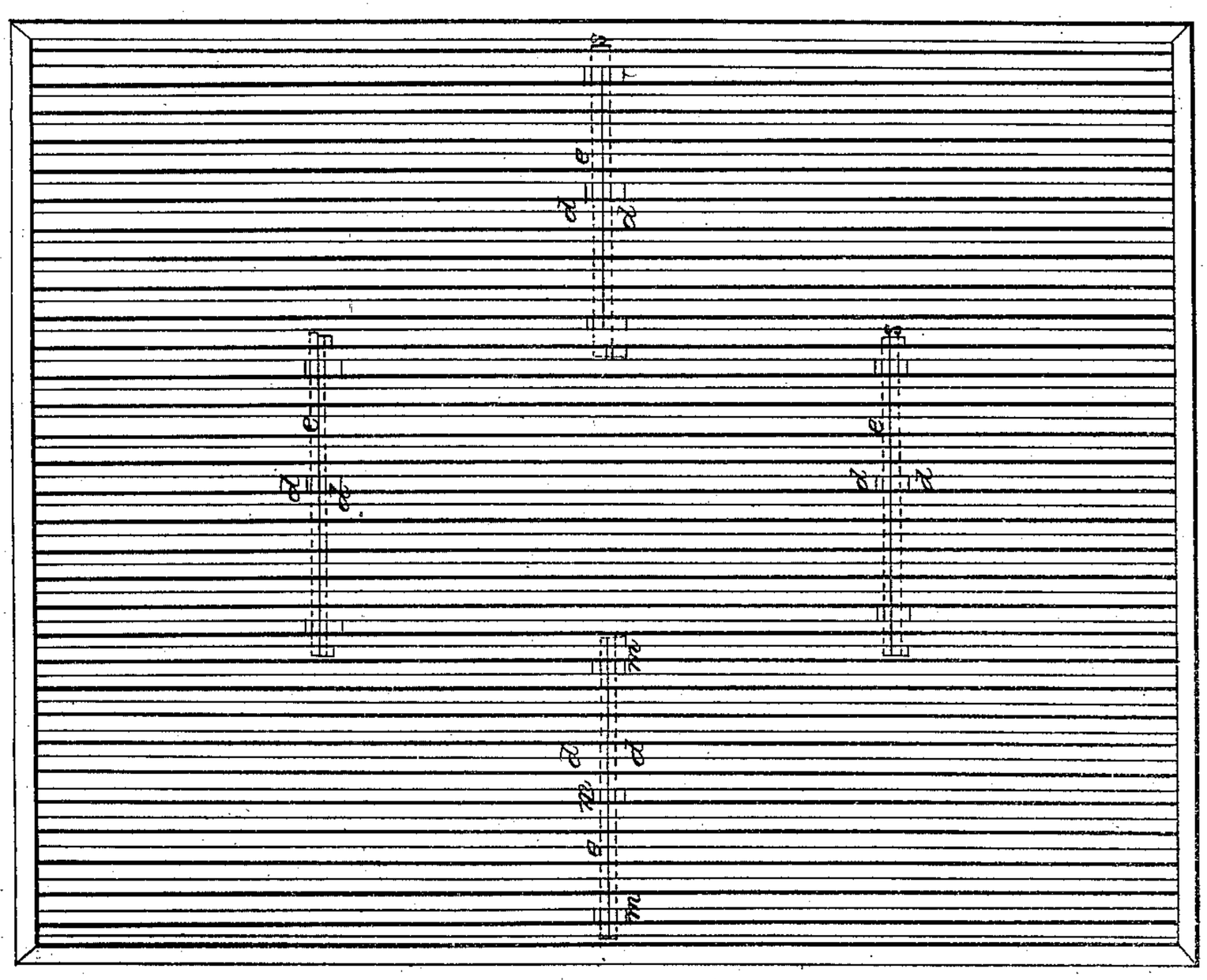


Fig. 2.

Fig. 3.

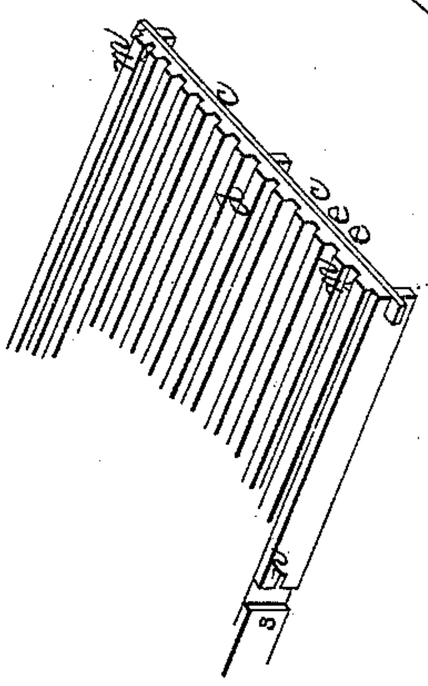


Fig. 4.

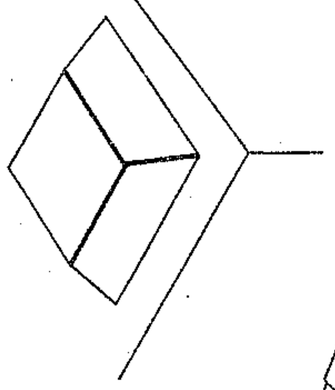
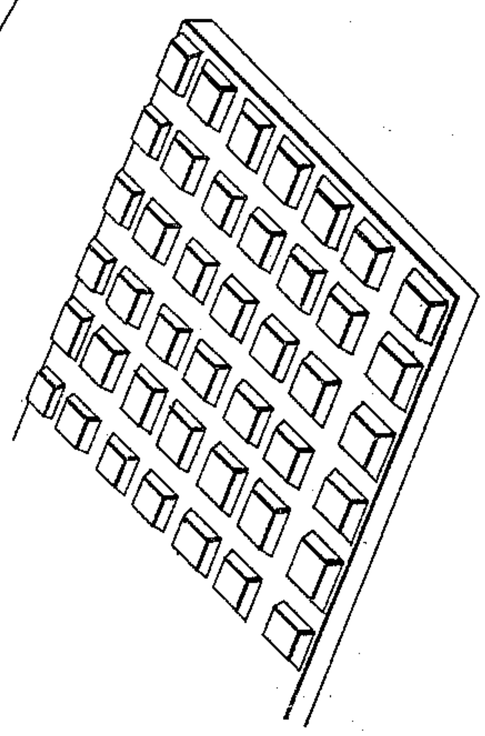


Fig. 5.



UNITED STATES PATENT OFFICE.

B. C. SMITH, OF BURLINGTON, NEW JERSEY.

MODE OF CONNECTING AND DISCONNECTING THE BLOCKS OF IRON OR OTHER PAVEMENTS.

Specification of Letters Patent No. 18,251, dated September 22, 1857.

To all whom it may concern:

Be it known that I, BARZILLAI C. SMITH, of Burlington, in the county of Burlington and State of New Jersey, have invented an Improvement in Iron Pavements, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known, and of the usual manner of making, modifying, and using the same, reference being had to the annexed drawings, of which—

Figure 1 shows a plan view of a number of blocks and the manner of laying them. Fig. 2 an end view of Fig. 1. Figs. 3, 4 and 5 are detached views in perspective.

My invention consists in certain improvements in iron pavements set forth as follows:—The blocks *a* are cast about four feet by two and weigh about 200 pounds per square yard. The upper surface of the blocks is ribbed so as to form suitable grooves for the reception of water and dirt and to prevent the slipping of horses; the ribs running across the street to carry the water to the sides of the street. The lower surface of the blocks is provided with four or more flanges or ribs, which form the sides of cells *c*, which are to act as air cells so that in case of a very heavy load, or flow upon the block the confined air will tend to resist the depression of the block.

In laying iron pavements, it has been found difficult to secure the blocks together in such manner as to render it convenient to remove the blocks for the purpose of repairs. My mode of securing the blocks admits of great facility in removing them and is as follows. Each end of the blocks is grooved as seen at *d*, *d*, and a bar or strip of metal *e* slipped into the grooves, secures the blocks together. The depth of the groove in one end of a block is half the width of the locking bar *e* and in the other end the whole width, so that the bar may be wholly within the groove on one end of a block and not interfere with the putting down or taking up of that end of the block. In laying the blocks a narrow and wide groove are brought together. Suitable apertures *m m* are made in each block just over the grooves and through these apertures the locking bars *e* are reached so as to be pushed out for locking or back for unlocking the blocks. On the sides of each block at the middle are small grooves *n* which receive the ends of the locking bar when it is pushed into place. The locking bar projects at each end beyond the sides of the paving block, and vertical grooves *s* are provided so as to allow the projecting ends of the locking bar to pass down into position to enter the grooves *n*. At the crossings of two streets I prefer to make the upper surface of the pavement covered with pyramidal bosses as shown in Figs. 3 and 4. The blocks are laid so as to break joints as shown in Fig. 1, and it will be obvious that the mode of locking the blocks renders it a very easy matter to remove them at any time, while at the same time it gives ample strength.

I do not claim securing plates together by means of dowels and channels or strips or bars and grooves to receive them, but

I do claim—

The mode herein set forth of locking the plates or blocks of iron pavements, the same consisting of the locking bar *e* and grooves *d*, *d*, one of which is of sufficient depth to cover the entire width of the bar *e*, while the other is of half that depth; and in combination therewith I claim the grooves *s* and *m* in the manner and for the purposes set forth.

B. C. SMITH.

Witnesses:

CHAS. G. PAGE,

R. T. CAMPBELL.